# INDEX.


BACON, CLARA LATIMER. The Cartesian Oval and the Elliptic Functions $p$ and $\sigma$ . 261

BATEMAN, H. The Double Tangents of a Binodal Quartic, . . . . . 57

BEAL, FREDERICK WAHN. Normal Congruences Determined by Centers of Geodesic Curvature. . . . . 10

BIRKHOFF, GEORGE D. The Reducibility of Maps, . . . . . 115

CARMICHAEL, R. D. Linear Mixed Equations and their Analytic Solutions, . . . . 151

CARMICHAEL, R. D. On the Theory of Linear Difference Equations, . . . . . 163

CARPENTER, A. F. A Theorem for the Development of a Function as an Infinite Product, . . . . . 105

DICKSON, LEONARD EUGENE. Finiteness of the Odd Perfect and Primitive Abundant Numbers with $n$ Distinct Prime Factors, . . . . . 413

DICKSON, L. E. Even Abundant Numbers, . . . . . 423

DINES, LLOYD L. The Highest Common Factor of a System of Polynomials in One Variable, . . . . . 129

EIESLAND, J. On a Flat Spread-Sphere Geometry in Odd-dimensional Space, . . . 201

EMCH, ARNOLD. Some Properties of Closed Convex Curves in a Plane, . . . . . 407

FISCHER, CHARLES ALBERT. A Generalization of Volterra's Derivative of a Function of a Curve, . . . . . 369

HENNEL, CORA B. Transformations and Invariants Connected with Linear Homogeneous Difference Equations and Other Functional Equations, . . . . . 431

HUDSON, HILDA P. On the Product of Two Quadro-Quadric Space-Transformations, 183

LEFSCHETZ, SOLOMON. On Some Topological Properties of Plane Curves and a Theorem of Möbius, . . . . . 189

MACMAHON, MAJOR P. A. The Indices of Permutations and the Derivation therefrom of Functions of a Single Variable Associated with the Permutations of any Assemblage of Objects, . . . . . 281

MANNING, W. A. The Primitive Groups of Class Twelve, . . . . . 229

MILLER, G. A. Groups Containing a Given Number of Operators Whose Orders Are Powers of the Same Prime Number, . . . . . 1

MORGAN, FRANK M. Involutorial Transformations, . . . . . 79

NYBERG, JOSEPH A. Projective Differential Geometry of Rational Cubic Curves, . . 453

OWENS, HELEN BREWSTER. Conjugate Line Congruences of the Third Order Defined by a Family of Quadrics, . . . . . 323

SCHOUTE, P. H. On the Four-dimensional Angles of the Semiregular Polotypes of $S_4$, 357

SCHWEITZER, ARTHUR RICHARD. A Theory of Geometrical Relations.—Continued, . 37

SHAW, JAMES BYRNIE. On Differential Invariants, . . . . . 395

THOMPSON, HENRY D. The Identical Relations between the Elements of any Oblique Triple System of Surfaces, . . . . . 427